

12 cont.
a cont.

pressure in each of the brake cylinders corresponding to the normal pressure control valve devices, by controlling said normal pressure control valve devices, while the brake cylinder corresponding to the abnormal pressure control valve device is disconnected from both of said first and second hydraulic pressure sources.

REMARKS

Claims 1-56 are pending. By this Amendment, claims 37-51 are amended.

The attached Appendix includes marked-up copies of each rewritten claim (37 C.F.R. §1.121(c)(1)(ii)).

Applicants' April 19, 2002 Response to Election of Species Requirement provisionally elected the species of Figs. 15-20, and asserted that at least claims 1, 22, 23, 37-42, 44-52 and 56 read on the elected species, and that claims 1, 22 and 23 are generic to all species. However, the June 28, 2002 Patent Office communication asserts that this response was not fully responsive since elected claims 37-42 and 44-52 depend on non-elected claim 33. Thus, the Patent Office communication requests clarification as to which claims read on the elected species.

In response, claims 37-51 are amended to directly depend from claim 1, which was elected by the April 19 Response to Election of Species Requirement.

It is therefore respectfully resubmitted that the species of Figs. 15-20 is elected, and at least claims 1, 22, 23, 37-42, 44-52 and 56 read on the elected species, and that claims 1, 22 and 23 are generic to all species.

This reelection is made with traverse, since it is respectfully submitted that the subject of all species is sufficiently related that a thorough search of the subject matter of any one species would encompass a search for the subject matter of the remaining species. The Examiner is therefore respectfully request to reconsider and withdraw the election of species requirement and to examine all species and claims in this application.

Prompt and favorable examination on the merits is respectfully requested.

Respectfully submitted,



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Attachment:
Appendix

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APPENDIX

Changes to Claims:

The following are marked-up versions of the amended claims:

37. (Amended) A braking pressure control apparatus according to claim-33_1, wherein said switching device includes a selectively cutting-off device operable between a first cut-off state in which said brake cylinder is communicated with said first hydraulic pressure source and is disconnected from said second hydraulic pressure source, and a second cut-off state in which said brake cylinder is communicated with said second hydraulic pressure source and is disconnected from said first hydraulic pressure source.

38. (Amended) A braking pressure control apparatus according to claim-33_1, wherein said hydraulically operated brake is provided for braking a wheel of a vehicle, and said switching control device command said switching device to establish said first state, when a running condition of said vehicle requires said brake cylinder to be operated with the pressurized fluid whose pressure does not corresponds to said operating force of said brake operating member.

39. (Amended) A braking pressure control apparatus according to claim-33_1, wherein said hydraulically operated brake is provided for each of four wheels of a vehicle, and said switching control device commands said switching device to establish said first state, when a running condition of said vehicle does not requires the brakes for the four wheels to be controlled in the same manner.

40. (Amended) A braking pressure control apparatus according to claim-33_1, wherein said hydraulically operated brake is provided for braking a wheel of a vehicle, and said switching control device commands said switching device to establish said first state, when a running condition of said vehicle requires said brake cylinder to be operated with the

pressurized fluid whose pressure is different from the pressure of the fluid pressurized by said second hydraulic pressure source.

41. (Amended) A braking pressure control apparatus according to claim 33_1, wherein said hydraulically operated brake is provided for braking a wheel of a vehicle, and said switching control device commands said switching device to establish said second state, when said vehicle which has been inhibited from running is permitted to run.

42. (Amended) A braking pressure control apparatus according to claim 33_1, wherein said hydraulically operated brake is provided for braking a wheel of a vehicle, and said switching control device commands said switching device to establish said second state, when said vehicle is stationary.

43. (Amended) A braking pressure control apparatus according to claim 33_1, wherein said hydraulically operated brake is provided for braking a wheel of a vehicle, and said switching control device includes a braking pressure control device operable when said first state is established by said switching device and when said vehicle is stationary, to control the pressure of the pressurized fluid by which said brake cylinder is operated, to a level of the fluid pressurized by said second hydraulic pressure source.

44. (Amended) A braking pressure control apparatus according to claim 33_1, further comprising a braking pressure control device operable when said first state is established by said switching device, to control the pressure of the pressurized fluid by which said brake cylinder is operated, on the basis of an operating amount of said brake operating member, and at least one of a rate of change of said operating amount and a derivative of said rate of change.

45. (Amended) A braking pressure control apparatus according to claim 33_1, further comprising:

a stroke simulator device operable to permit flows of the fluid to and from said second hydraulic pressure source, according to an operation of said brake operating member; and

a diagnosing device for diagnosing said stroke simulator device for any abnormality thereof,

and wherein said switching control device commands said switching device to establish said second state, when said diagnosing device determines that said stroke simulator device is abnormal.

46. (Amended) A braking pressure control apparatus according to claim 33_1, further comprising:

a brake-operating-state detecting device for detecting an operating state of said brake operating member;

a diagnosing device for diagnosing said brake-operating-state detecting device for any abnormality thereof; and

a first-pressure-source control device for controlling the pressure of the fluid pressurized by said first hydraulic pressure source, on the basis of an output signal of said brake-operating-state detecting device,

and wherein said switching control device commands said switching device to establish said second state, when said diagnosing device determines that said brake-operating-state detecting device is abnormal.

47. (Amended) A braking pressure control apparatus according to claim 33_1, further comprising:

a stroke detecting device for detecting an operating stroke of said brake operating member;

a force detecting device for detecting said operating force of said brake operating member;

a diagnosing device for diagnosing said stroke detecting device and said force detecting device for any abnormality thereof;

a first pressure control device operable when said stroke detecting device and said force detecting device are normal, to control the pressure of the pressurized fluid by which said brake cylinder is operated, on the basis of both the operating stroke and the operating force which are respectively detected by said stroke detecting device and said force detecting device; and

a second pressure control device operable when one of said stroke detecting device and said force detecting device is abnormal, to control the pressure of the pressurized fluid by said brake cylinder is operated, on the basis of an output signal of the other of said stroke detecting device and said force detecting device.

48. (Amended) A braking pressure control apparatus according to claim 33-1, further comprising:

a plurality of operating-state detecting devices for detecting an operating state of said brake operating member;

a diagnosing device for diagnosing each of said plurality of operating-state detecting devices for any abnormality thereof;

a first pressure control device operable when said plurality of operating-state detecting devices are normal, to control the pressure of the fluid pressurized by said first hydraulic pressure source on the basis of at least one of output signals of said plurality of operating-state detecting devices; and

a second pressure control device operable when at least one of said plurality of operating-state detecting devices is normal and when at least one of said plurality of

operating-state detecting devices is abnormal, to control the pressure of the fluid pressurized by said first hydraulic pressure source, on the basis of an output signal of said at least one operating-state detecting device which is normal.

49. (Amended) A braking pressure control apparatus according to claim 33_1, which is provided for controlling the pressure of the pressurized fluid in each of a plurality of brake cylinders of a plurality of brakes, and wherein said first hydraulic pressure source includes a plurality of pressure control valve devices which are operable independently of each other to control the pressures of the pressurized fluid in said plurality of brake cylinders, on the basis of the fluid pressurized by said pressurizing device, said braking pressure control apparatus further comprising:

a plurality of braking-pressure detecting devices for detecting the pressure in said plurality of brake cylinders, respectively;

a diagnosing device for diagnosing each of said braking-pressure detecting devices for any abnormality thereof;

a connecting passage connecting two of said plurality of brake cylinders;

a communicating valve provided in said connecting passage;

a first pressure control device operable when said plurality of braking-pressure detecting devices are all normal, to control said plurality of pressure control valve devices on the basis of the pressures detected by said braking-pressure detecting devices; and

a second pressure control device operable when one of said plurality of braking-pressure control devices is abnormal and when the braking-pressure detecting device corresponding to the brake cylinder connected through said connecting passage to the brake cylinder corresponding to said abnormal braking-pressure detecting device is normal, said second pressure control device controlling the two pressure control valve devices connected to each other by said connecting passage, on the basis of the pressure detected by the normal

braking-pressure detecting device, while said communicating valve in said connecting passage is open.

50. (Amended) A braking pressure control apparatus according to claim 33 1, which is provided for controlling the pressure of the pressurized fluid in each of a plurality of brake cylinders of a plurality of brakes, and wherein said first hydraulic pressure source includes a plurality of pressure control valve devices which are operable independently of each other to control the pressures of the pressurized fluid in said plurality of brake cylinders, on the basis of the fluid pressurized by said pressurizing device, said braking pressure control apparatus further comprising:

 a diagnosing device for diagnosing each of said pressure control valve devices for any abnormality thereof;

 a connecting passage connecting two of said plurality of brake cylinders;

 a communicating valve provided in said connecting passage;

 a first pressure control device operable when said plurality of pressure control valve devices are all normal, to control the pressures in said plurality of brake cylinders, by controlling said plurality of pressure control valve devices, respectively; and

 a second pressure control device operable when said diagnosing device determines that at least one of said plurality of pressure control valve is abnormal and when the pressure control valve device corresponding to the brake cylinder connected through said connecting passage to the brake cylinder corresponding to said abnormal pressure control valve device is normal, said second pressure control device controlling the pressures in the two brake cylinders connected to each other by said connecting passage, by controlling the normal pressure control valve device, while said communicating valve in said connecting passage is open.

51. (Amended) A braking pressure control apparatus to according to claim 33_1, which is provided for controlling the pressure of the pressurized fluid in each of four brake cylinders of four brakes, and wherein said first hydraulic pressure source includes four pressure control valve devices which are operable independently of each other to control the pressures of the pressurized fluid in said four brake cylinders, on the basis of the fluid pressurized by said pressurizing device, said braking pressure control apparatus further comprising:

a diagnosing device for diagnosing each of said four pressure control valve devices for any abnormality thereof;

a first pressure control device operable when said four pressure control valve devices are all normal, to control the pressures in said plurality of brake cylinders, by controlling said four pressure control valve devices, respectively; and

a second pressure control device operable when said diagnosing device determines that one of said four pressure control valve device is abnormal, to control the pressure in each of the brake cylinders corresponding to the normal pressure control valve devices, by controlling said normal pressure control valve devices, while the brake cylinder corresponding to the abnormal pressure control valve device is disconnected from both of said first and second hydraulic pressure sources.